

## **Table of Contents**

### **Part I Context**

1. Teaching context .....	1
2. Areas to be considered and evaluated.....	1

### **Part II: Literature Review**

<b>3. Use of games in education .....</b>	<b>2</b>
3.1 Why use digital games for learning? .....	2
3.2 Types of games and potential learning areas .....	2
<b>4. Digital game-based language learning (DGBLL) .....</b>	<b>3</b>
4.1 Digital games and the cognitive process.....	3
4.2 Enhancement of willingness to communicate.....	3
4.3 How DGBLL promotes the development of linguistic skills .....	4
4.4 Successful application of DGBLL .....	5
<b>5. Challenges and opportunities of DGBLL .....</b>	<b>5</b>
5.1 Why is choosing the appropriate game important for the learners' cognition? .....	5
5.2 Understanding digital games' technical requirements and affordability .....	6
<b>6. Conclusions .....</b>	<b>6</b>

### **Part III: Practical Understanding / Rationale Outlining**

<b>7. Expected learning outcomes: Critical analysis .....</b>	<b>7</b>
<b>8. Identification of weaknesses and strengths in the use of digital games in language learning ..</b>	<b>8</b>

<b>References .....</b>	<b>Error! Bookmark not defined.9</b>
<b>Appendix 1: Lesson plan : Use of the game: “Veó Veó” .....</b>	<b>11</b>
<b>Appendix 2 Digital version of the game “Veó Veó” .....</b>	<b>12</b>
<b>Appendix 2 Board game version of the game “Veó Veó” .....</b>	<b>13</b>

## **Part I: Context**

### **1. Teaching context**

As a language teacher who has taught a variety of ages (children, teenagers and adults), and with the constant development of new teaching materials, it has been possible to perceive that the main teaching objectives have revolved around promoting linguistic competence through the development of listening and speaking skills as the core of the four language skills structure. Even though there are a variety of different learning tools available, through personal experience it has been shown that the use of game-based language learning is a popular learning method amongst young and adults learners. This is the provision of interactive and immersive language learning environments and it helps the learners to gain an interest in learning language; thus, learners naturally develop self-confidence and a willingness to use the target language.

### **2. Areas to be considered and evaluated**

In the modern age, digital educational games have generally been a valuable teaching tool that can help to educate and motivate learners by making the learning experience more enjoyable and interactive. According to Whitton (2014b), “Digital and traditional games can provide a way in which to move the focus of our schools, colleges and universities to more active, experiential and student-centred models of teaching, learning and assessment” (p.3). Likewise, the use of digital games in language learning could provide a great impact on all four language skills (speaking, listening, reading and writing) through the practice of grammar and vocabulary in collaborative and motivational learning environments (Reinders and Wattana, 2015). Nevertheless, it is important to comprehend that the use of digital game-based learning will require the implementation of an appropriate pedagogical approach that provides well-planned and stimulating activities, in order to avoid passivity in the learners (Harris and Hofer, 2011).

In recent years, digital educational games have been developing rapidly, and their use in the language learning process is increasing dramatically (Reinders and Wattana, 2015). Additionally, from personal teaching experience the use of games as a learning tool, in addition to the linguistic benefits, provides the learners with non-linguistic skills, which are beneficial for the entire cognitive development of the learner. As a result, the current paper analyses the current uses and future potential of digital game-based language learning (DGBLL) via a critical review of the cognitive impact of the use of games in language learning, and how their appropriate integration within teaching practices could create opportunities for the development of linguistic competence, as well as more engaging and motivational learning environments.

## **Part II: Literature Review**

### **3. Use of games in education**

#### **3.1 Why use digital games for learning?**

The use of digital games in education has become popular in recent years, and their forms of use keep expanding based on the cognitive benefits that they potentially provide to learners (Whitton, 2014b). Moreover, games can create motivating learning environments by reducing anxiety, which helps learners to express themselves more freely (Thomas, 2012). Therefore, games have been successfully used as a tool for “learning via play” from schools up to governmental corporations, such as the U.S. military (Prensky, 2001a). Nevertheless, it is important to determine the varied ways that learners interact with and are motivated by the use of games as a learning tool, which can vary depending upon age, gender, ethnicity and social class (Begoña, 1993).

In addition to the cognitive benefits that the use of games in education could provide, they also promote the development of social skills, such as teamwork. (Reinders and Wattana, 2015), which could keep learners motivated to progress in their learning (Butler et al., 2014). Similarly, recent research studies report that the use of games for educational purposes is becoming more popular between parents and children as a family activity (Cornillie et al., 2012). However, various studies have shown that digital games could have a negative impact on children’s behaviour if they play for more than a prudent length of time (Felicia, 2009) On the contrary, Prensky (2009c) emphasises that if the use of games has adequate guidance, and is in moderation, it could also contribute to the development of the children’s imagination and creative which would have a good impact on the behaviour.

#### **3.2 Types of games and potential learning areas**

There is an extensive range of games that are available as potential tools in different learning areas. As a result, games can be used and adapted to teach a wide variety of content and skills (Felicia, 2009). Therefore, it is possible to categorise games by their genre: adventure, platform, puzzle, quiz, role playing, shooter, strategy; and by their potential learning areas: problem solving, creativity, planning, numeracy, logic, memory, empathy, social skills, spelling, time management, decision-making, literacy (Whitton 2014b). Consequently, the use of digital game-based learning for teaching languages could have a good potential to improve and enhance the four language skills, while it could also provide a holistic way of learning grammar structures and vocabulary (Butler et al., 2014). Reinhardt and Sykes (2012) provide a framework to help identify the type of games that could be used in language learning through two parts: “game-enhanced”, is basically the adaptation of typical commercial games to teach languages; and “game-based”, which are games specifically designed for language learning and pedagogy.

## **4. Digital game-based language learning (DGBLL)**

### **4.1. Digital games and the cognitive process**

The digital transformation of education has brought many benefits and challenges to the way learners engage and gain knowledge and skills in language learning (Jimenez and Sercu, 2007; Prensky, 2001a). Hence, the role of teachers and their teaching practices need to change and adapt, as the learners are becoming more empowered with the help of technology (Evans 2009). The new generation of learners has drastically changed from the older generations, as it is surrounded by computers, digital games, mobile telephones, etc. Therefore, the way it receives and processes information contrasts wildly to its predecessors (Prensky, 2001b). Accordingly, it has been suggested that DGBLL can have an impact on most learning theories: constructivist, behaviourist and cognitivist (Felicia, 2009).

In particular, the idea of using stimuli from the environment to form complex structures and understanding, which affect the individual behaviour, form part of the behaviourist theory. Thus, under this theory, DGBLL exposes the learner to continuous external stimuli than can eventually increase linguistic skills through the development of the learners' desire to explore and play more. Similarly, under the cognitivist and constructivist theories, DGBLL provides the learner with a vast variety of linguistic contexts, where the information provided helps the learners to analyse and integrate them into their own context. The idea is to promote critical thinking, decision making, problem solving, etc., which are vital to create linguistic competence (Filsecker and Bundgens, 2012). As a result, we can suggest that DGBLL could have a great impact on the cognition of learners, as it has the capacity to promote a natural interest and curiosity to learn a language. Even better, it also allows the learners to gain linguistic and non-linguistic skills simultaneously.

### **4.2 Enhancement of willingness to communicate**

It has been shown that the use of games in language learning has a great impact on the cognition of the students, due to the use of social interaction and collaboration (Cornillie et al., 2012). There are different types of multiplayer games; each one with their own benefits to the learning process. Peterson (2012) provides a useful understanding of the social interactions in multiplayer games through one research, where players showed a noticeable level of positive politeness in the way they communicate, with the incorporation of humour, which facilitates the development of relationships and teamwork. As a result, the learners improved their reading and writing skills. Similarly, Whitton (2014b) suggests that the idea of "Communities of Practice" (Wenger, 1998), where people with the same profession or a common interest learn from each other through active interactions. This idea could be applicable to learners with the same

linguistic goals, which means that teachers should take this practice on board and use game-based language learning as an opportunity to develop learners' confidence in the use of the target language in real-life situations and to promote lifelong learning (Jimenez and Sercu, 2007).

The acquisition of linguistic skills in DGBLL is mostly based on the idea that games are social; therefore, they are naturally going to promote the need for communication by submerging the learners in real-life situations, where in some cases negotiation skills are necessary (Peterson, 2012). Additionally, DGBLL can provide learners with the freedom to combine imagination and reality (Reinders and Wattana, 2015). The use of the game "Mentira" ("a lie" in Spanish) to teach Spanish is a good example of how the use of games in the classroom can help to enhance linguistic skills. While playing "Mentira", students play the role of a lawyer to help absolve their families of guilt in a murder trial. To do this, they have to gather evidence and clues, and talk to their physical and online neighbours, to eventually determine who the real killer is. As a result, mutual collaboration is required; this could promote the predisposition to communicate in the target language (Reinhardt and Sykes, 2012). Nevertheless, from personal experience, young learners tend to feel more attracted to digital games in comparison to adult learners, who prefer traditional board games; however, both types of learners have shown remarkable linguistic progress after interacting with "learning via play". Furthermore, the willingness to use the target language was dramatically increased.

#### **4.3 How DGBLL promotes the development of linguistic skills**

Most learners nowadays are "digital natives", which means that they are born into a technological world, so the use of DGBLL is not completely new; in fact, in most cases learners need this digital learning tool to engage and gain interest (Prensky, 2001b). Therefore, the way games contribute to the enhancement of linguistic skills is through the provision of mutual collaboration, goal setting, meaningful challenges, authentic contexts, and reward mechanisms (Whitton, 2012a). It has been shown that learners develop their language skills in DGBLL by social interaction, but also that games could promote self-confidence through the provision of a rewarding system (Reinhardt and Sykes, 2012). Similarly, some studies have also revealed that learners prefer games based on text chat, because this allows them to think about what they want to say first (Reinders and Wattana, 2015). Additionally, from personal experience, students enjoy practicing vocabulary with the use of memory games, such as "Rockalingua", and practicing grammar using role-play games, which allow them to gain confidence and interest in the idea of learning a language.

#### **4.4 Successful applications of DGBLL**

In traditional methods of learning students interact with and participate in grammar and vocabulary, which is based purely on the teacher's guidance and instructions, whereas nowadays learners prefer to interact in small groups or pairs, where they work through task-based activities with the help of games as learning tools (Thomas, 2012). Therefore, it has been suggested that the use of games in conjunction with a task-based approach could provide the learner with a wide variety of communication and intercultural activities (Ellis, 2003). A task-based activity has a holistic way of engaging learners with a target language. Nevertheless, the effectiveness of this approach depends on the complexity of the task and how well the teacher includes the students in the task, by providing them with the correct guidance and the freedom to develop their initiative and creativity (Thomas, 2012). "In L2 pedagogy, a widely accepted definition of 'task' is an activity that involves primarily meaning-focused language use (as opposed to form-focused exercises) that results in some (essentially non-linguistic) outcome and which is intended to result in the completion of some specified language aim." (Cornillie et al., 2012, p.250). Consequently, the use of task-based activities could help the learners to gain linguistic and non-linguistic skills. Additionally, task-based games could have an impact on the psychological aspect of the learners by providing them with feelings of belonging and identification with educators and peers (Whitton, 2014b). Nevertheless, from personal experience it is important to mention that the context is another important factor that a teacher needs to comprehend when introducing games as a language learning tool; for example, there are different learning and teaching dynamics between learners in the USA and learners in Ecuador. Therefore, in some cases the use of DGBLL will not have the same cognitive impact on the learners.

## **5. Challenges and opportunities of DGBLL**

### **5.1 Why is choosing the appropriate game important for the learners' cognition?**

One of the challenges that teachers face when using games to teach languages is in selecting a game that is suitable for the learners' cognition and preferences. Butler et al. (2014) researched young English students who were learning a second language, in order to determine the way that they engage and interact with DGBLL. The study found that young learners are naturally attracted to the games; hence, their use in language learning could develop great linguistic benefits. However, the results determined that it is very important to bear in mind the age of the learners, due to the fact that cognitive demands and curiosity change according to age. Consequently, teachers need to make sure that the games meet these demands. Additionally, it is important to notice that some games might attract the learners' interests, but others will not. This could be due to factors such as age and culture (Whitton, 2014b). Similarly, from personal experience, it has been shown that it is necessary to have appropriate preparation and support for the use of DGBLL to avoid passivity in the learners; the idea is to provide the learners with an interactive

well-supported digital learning tool. As a result, in some cases it is even possible to keep learners interested enough to continue to work outside the classroom in these activities.

## **5.2 Understanding digital games' technical requirements and affordability**

The idea of using DGBLL sounds innovative and interesting for the various reasons presented earlier. However, it is important to understand that the correct use of the games within the language learning environment involves access to the correct equipment and the appropriate technical training of the educators (Whitton, 2012a). Therefore, games are not always suitable or affordable for all educational settings (Godwin, 2014). Moreover, it is important to take on board the amount of time that the educators would have to spend in developing the technological skills to appropriately select, adapt or design games, as well as in creating the activities to support the use of games in language learning (Prensky, 2001a). Nevertheless, it is important to acknowledge that teachers and learners have access to a wide variety of free educational games nowadays, which are normally provided by governmental educational organisations such as the British Council for the English Language and the Cervantes Institute for the Spanish Language. Hence, the idea of teachers adapting their practices to the technicalities of digital games could also be seen as a reason to promote innovation, which is beneficial for the learners as it has been suggested that the future of education will demand a complete development of the brain and mind towards the use of technology (Prensky, 2009c). But nevertheless, this affirmation is something that still does not have a reliable scientific base.

## **6. Conclusions**

It has been shown that the use of DGBLL produces lots of cognitive benefits to the learners by the promotion of social interaction in ludic learning environments. Therefore, I suggest that, with the appropriate guidance from educators, there is a big opportunity for DGBLL. For example, for children with an intellectual disability (ID), games could provide the extra personalised educational assistance and support that a child with ID needs in order to improve communication, learning, problem solving and social skills, which would allow them to learn and advance at their own pace. What is more, from personal teaching practices, I propose the use of DGBLL as an additional tool to improve the behaviour and general mental health of children and adolescents, which could help to tackle typical problems such as: disinterest of the learners, behavioural issues, and the feeling of non-belonging, etc.

## **Part III: Practical Understanding / Rationale Outlining**

### **7. Expected learning outcomes: Critical analysis**

For the lesson plan, it is expected that the learners will interact with the adapted educational game known as “Veó Veó”, which is a game that allows young and adult learners alike to use their imagination and creativity via the oral creation of a story of a fictional life situation in the future. This game also provides an engaging social learning environment where students interact with one another in order to achieve the set task. Overall, the use of this game as part of this lesson is based on the idea that games can produce learning environments that acknowledge and foster all of the individual capacities of the students (Whitton, 2014b). Therefore, the expected learning outcomes of this lesson are as follows:

**A. Students will be able to collect and organise the appropriate vocabulary to use in more complex grammatical structures.**

To achieve this learning outcome, it is essential to expose the learners to a real-life situation provided by the game, where they can gather vocabulary, quickly analyse it, and build their own sentences with the appropriate grammar structures.

**B. Students will be able to apply the vocabulary and grammar acquired in real-life situations.**

To achieve this learning outcome, it is important to promote the learner’s collaborative interaction and critical analysis of the game’s images and objects, which will help them to create their own mental associations. Eventually, this will allow the learners to use the target language in the most natural way. Hence, the acquisition of linguistic skills will be enhanced by the use of negotiating meaning (Reinders and Wattana, 2015).

**C. Students will understand the relationship and differences between the use of the future tense and conditional tense.**

To achieve this learning outcome it is important to provide the learners with meaningful challenges (Whitton, 2014b). This is achieved by allocating enough time for the learners to recognise the uses of the future and conditional tenses within the game’s images, and to gradually associate them for the creation of their own stories and questions in the target language.

**D. Students will be able to talk about future plans in their personal, educational and professional life.**

To achieve this learning outcome, it is vital to understand that the main idea of the educational game is based around roleplaying, where the students cooperate with each other and the use of the target language is promoted by creating a social motivational learning environment. As a result, this would have an impact on the way learners gain confidence, and the willingness to communicate outside the classroom will develop.

**E. Students will be able to ask and respond to questions orally.**



To achieve this learning outcome, it is necessary to bear in mind that nowadays learners prefer to interact in small groups or pairs through the use of task-based activities (Thomas, 2012). Therefore, when the students collaborate and talk with their peers to achieve the set task, they will simultaneously develop the ability to analyse useful oral or visual information in order to create their own discussion scenarios.

**F. Students will appreciate the value of social interaction in order to gain oral linguistic competence.**

To achieve this learning outcome, it is vital to create a successful and balanced social interaction through the use of the game's task-based activities, where the students realise that mutual collaboration and feedback is an important factor for the development of their communicative and linguistic skills (Reinders and Wattana, 2015).

**G. Students will have the capacity to build and improve their self-confidence in using the target language through social interaction in and outside of the classroom.**

To achieve this learning outcome, it is vital to provide a reward system in conjunction with the use of the game (Whitton, 2014b). This will help to keep the learners motivated to use the target language in the classroom with the collaboration and support of their peers. Moreover, this will give the learners the confidence to gain an interest in learning a language, and this will be of use outside the educational setting.

## **8. Identification of weaknesses and strengths in the use of Digital games in language learning**

It has been shown from personal experience that the use of digital games in language learning is not always reliable, as in certain cases it is possible that a technical fault will occur on the day of the lesson. Additionally, as I stated previously, digital games are more popular with young learners than the older generations. Digital natives feel more comfortable with the use of digital technology (Prensky, 2001b), whereas adult learners, the "Digital immigrants", had not felt comfortable with the digital version of this game; hence, it became necessary to adapt it into a board game to make the adult students feel more relaxed and confident. Nevertheless, the learning outcomes in both scenarios were very similar, and the idea of "learning via play" has allowed both types of learners to gain confidence in the use of the Spanish language in both the classroom and in real-life situations.

## References

- Begoña, G. (2007). *Digital Games in Education*, *Journal of Research on Technology in Education*, 40:1, 23-38, DOI: 10.1080/15391523.2007.10782494
- Butler, Y. G., Someya, Y., & Fukuhara, E. (2014). *Online games for young learners' foreign language learning*. *ELT Journal*, 68(3), 265-275. doi:10.1093/elt/ccu008
- Cornillie, F., Thorne, S. L., & Desmet, P. (2012). *Digital Games for Language Learning: From Hype to Insight?* *ReCALL Journal*, 24(3): 243-256.
- Ellis, N. C. (1996). Sequencing in SLA: Phonological memory, chunking, and points of order. *Studies in Second Language Acquisition*, 18, 91–126 EUN Partnership AISB.
- Evans, M. (2009). *Foreign-language learning with digital technology*. London: Continuum.
- Felicia, P. (2009). *Digital games in schools, a handbook for teachers*. Belgium: European Schoolnet
- Filsecker, M., and Bundgens-Kosten, J. (2012). *Behaviorism, Constructivism, and Communities of Practice*. *Digital Games in Language Learning and Teaching*. doi:10.1057/9781137005267.0009
- Godwin, R. (2014). Games in language learning: Opportunities and challenges. *Language Learning & Technology* 18(2), 9–19 Retrieved from <http://lilt.msu.edu/issues/june2014/emerging.pdf>
- Harris, J and Hofer, M. (2011). *Technological Pedagogical Content Knowledge in Action: A Descriptive Study of Secondary Teachers' Curriculum-Based, Technology-Related Instructional Planning*. *JRTE* | Vol. 43, No. 3, pp. 211–229 | ©2011 ISTE | iste.org
- Jimenez, M., and Sercu, L. (2007). *Challenges in teacher development: learner autonomy and intercultural competence*. Frankfurt am Main; Oxford: Peter Lang.
- Peterson, M. (2012). 'Learner interaction in a massively multiplayer online role playing game (MMORPG): A sociocultural discourse analysis', *ReCALL*, 24(3), pp. 361–380. doi: 10.1017/S0958344012000195.
- Prensky, M. (2001a). *Digital Game-based Learning*. New York: McGraw-Hill.
- Prensky, M. (2001b). "Digital Natives, Digital Immigrants". *MCB University Press*, Vol. 9 No. 5,
- Prensky, M. (2009c). "H. Sapiens Digital: From Digital Immigrants and Digital Natives to Digital Wisdom," *Innovate: Journal of Online Education*: Vol. 5: Iss. 3, Article 1.
- Reinders, H. (2012). *Digital games in language learning and teaching*. Basingstoke: Palgrave Macmillan.
- Reinders, H. and Wattana, S. (2015). 'Affect and willingness to communicate in digital game-based learning', *ReCALL*, 27(1), pp. 38–57. doi: 10.1017/S0958344014000226.
- Reinhardt, J., and Sykes, J. M. (2012). *Conceptualizing Digital Game-Mediated L2 Learning and Pedagogy: Game-Enhanced and Game-Based Research and Practice*. *Digital Games in Language Learning and Teaching*, 32-49. doi:10.1057/9781137005267\_3

- Thomas, M. (2012). Contextualizing Digital Game-Based Language Learning: Transformational Paradigm Shift or Business as Usual? *Digital Games in Language Learning and Teaching*, 11-31. doi:10.1057/9781137005267\_2
- Wenger, E., McDermott, R., and Snyder, W. (2002). *Cultivating Communities Of Practice: A Guide To Managing Knowledge*, Boston, Mass: Harvard Business Review Press, eBook Collection EBSCOhost, viewed 5 November 2016.
- Whitton, N. (2012a). The Place of Game-Based Learning in an Age of Austerity. *Electronic Journal of e-Learning*, 10(2), 249-256.
- Whitton, N. (2014b). *Digital Games and Learning, Research and Theory*. New York, USA: Routledge.

## Appendix 1

Lesson Plan: 18-January-2017

<b>Topic:</b> Tell me more about my future
<b>Aims and objectives:</b> To help students use their imaginations to create a fictitious character and scenarios To help students focus on fluency when speaking and asking questions To develop students' communication skills To develop students' listening skills To develop students' writing skills
<b>Age group:</b> Young learners and adults
<b>Level:</b> Pre-intermediate or above
<b>Time required:</b> 50 minutes
<b>Equipment and Material:</b>
1. Computer/tablet with internet access
2. Online educational game (previously designed and adapted for learning purposes)
3. Vocabulary sheet (this will support learner's vocabulary)
<b>Introduction:</b> In this lesson students will think about future events and possible situations in the use of the game "Veó Veó", where they will join a team of four people and will interpret the cards and will predict the future.
<b>Preparation and development:</b>
<b>Part 1</b> (about 10 minutes): Instructions for the game will be provided at the beginning of the lesson. In small groups, the learners will open a link to access the teacher's website, where they will find the link to the digital game "Veó Veó". 5 minutes will be allowed for the learners to become familiar with the cards and the learning objectives of the game.
<b>Part 2</b> (about 30 minutes): At this point students will use "Veó Veó" to interpret the meaning of the cards for their future. Therefore, the students will be put into an interview role-play position where one will play the fortune teller role and another will play the role of a desperate person who wants to know his/her future. Learners will switch roles and with the help of the vocabulary sheet they will formulate questions for each other through the use of the future tenses.
<b>Part 3</b> (about 10 minutes): In this part of the lesson the learners are given the task to change "the future predictions in their lives"; previously shown by the card. They will engage in a short discussion in pairs and then individually write a small paragraph, where the use of both tenses will be a requirement.
<b>Assessment:</b>
Students write questions for each card, put them in a hat or a bag, and then ask the students to pick a question and answer it. Additionally, they will have to prepare a written piece where they will write about their future expectations for their lives or about what they are doing during the upcoming weekend.

## Appendix 2

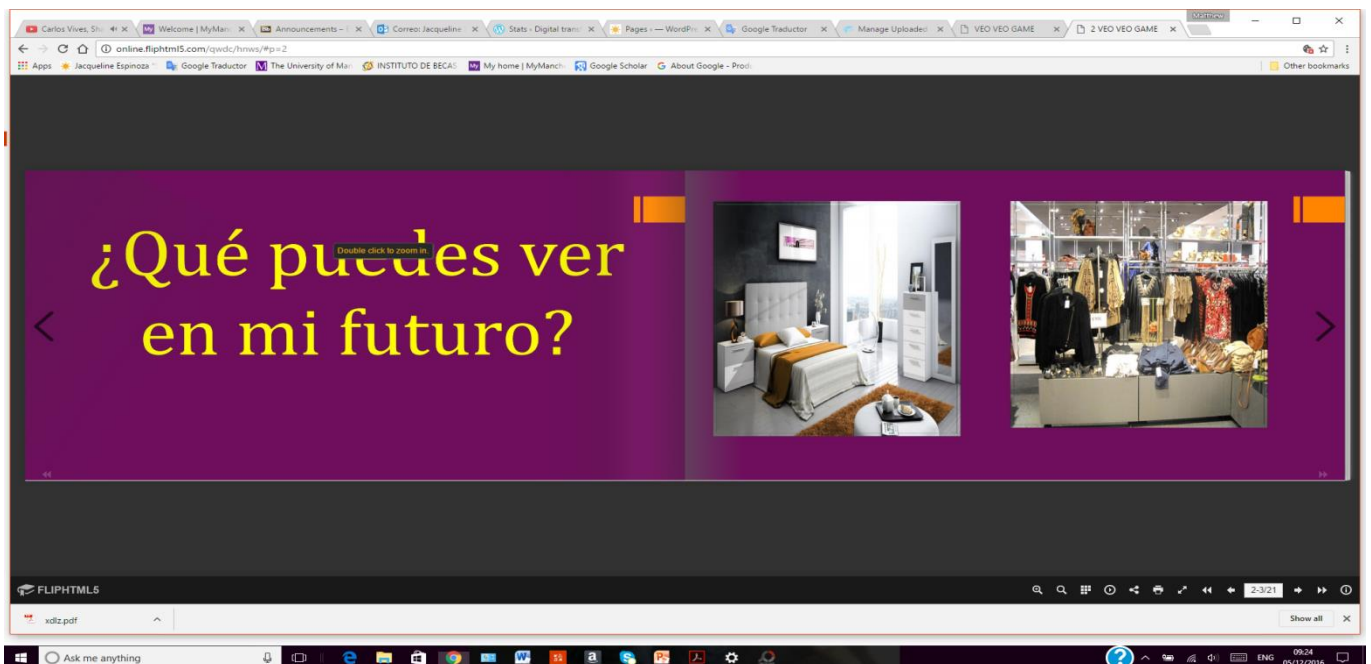
### 1. Digital version of the game “Veó Veó”

The digital version of the games could be found on the teacher’s website:

<https://jackyspanish.co.uk/games-juegos/games/>

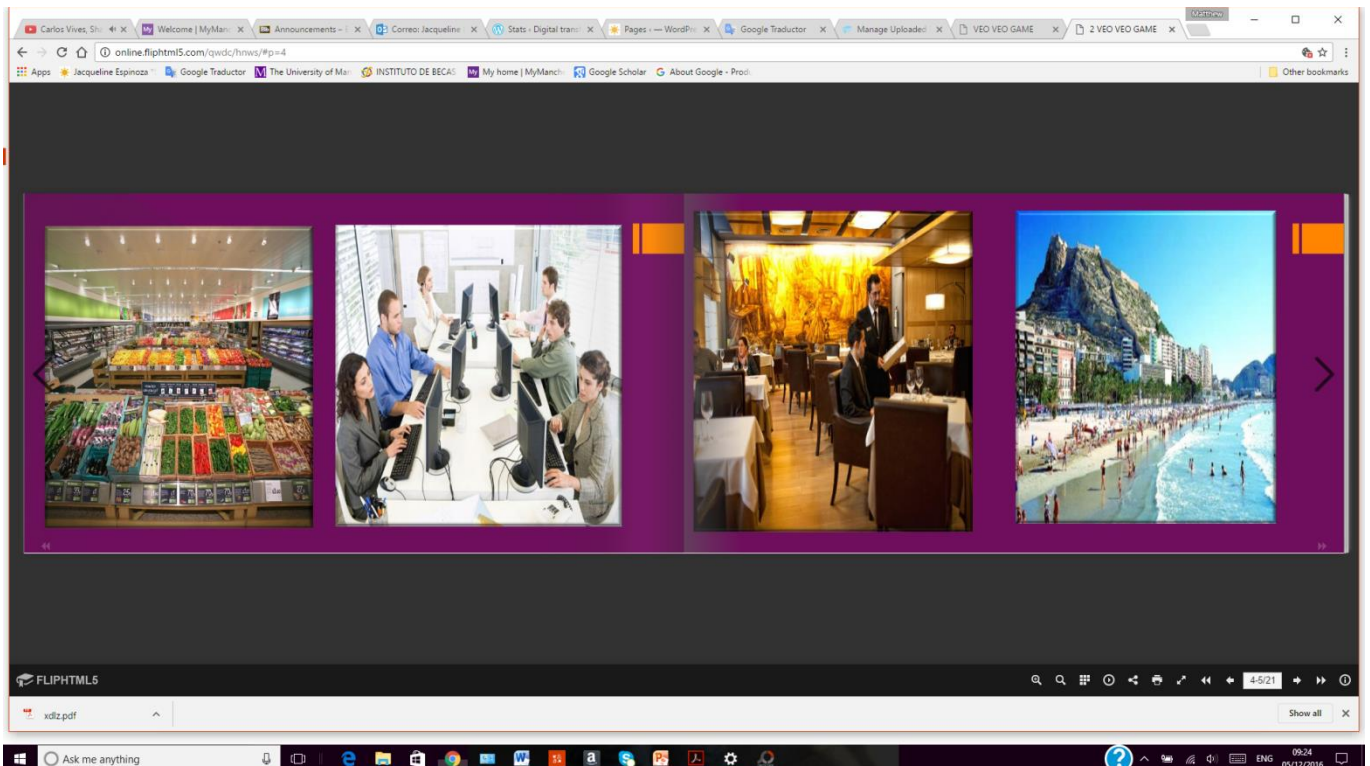
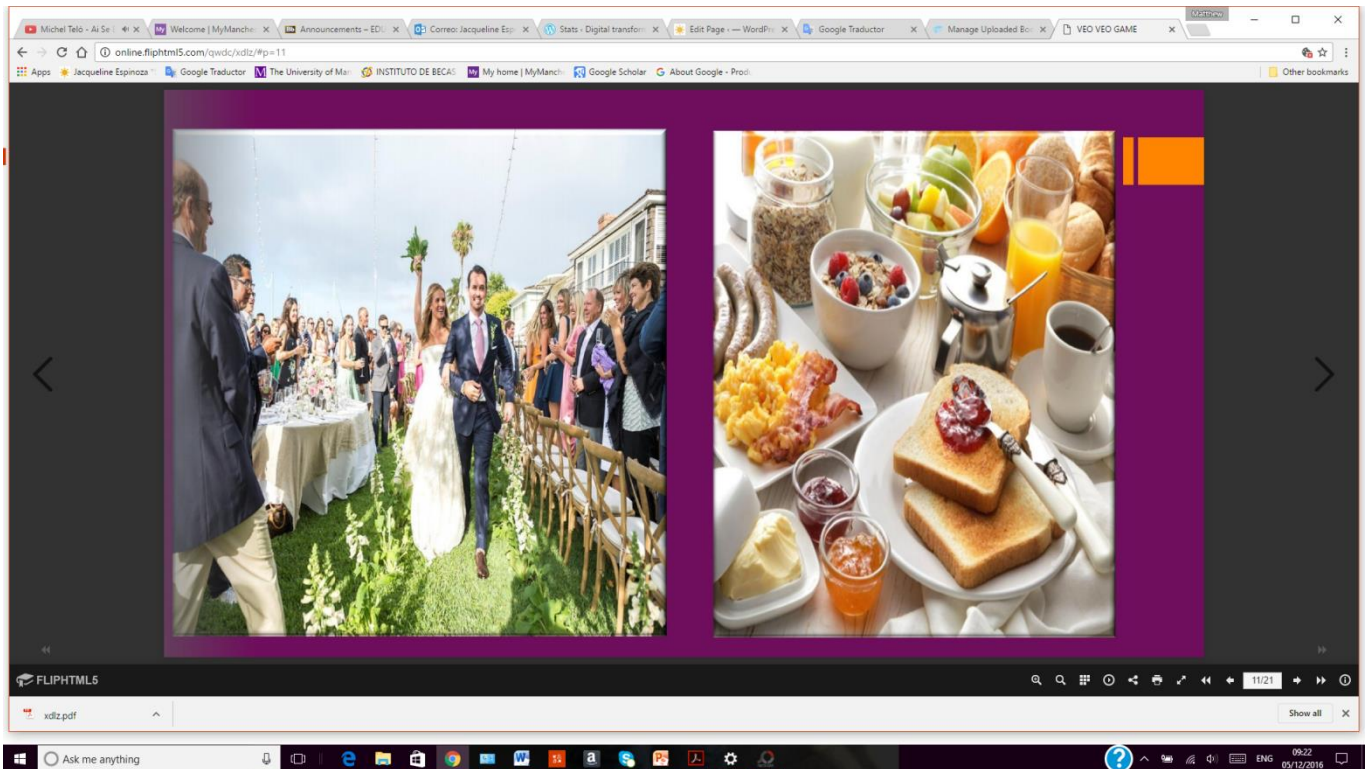
Or directly to the game link Version1: <http://online.fliphtml5.com/qwdc/xdlz/#p=5>

Version 2: <http://online.fliphtml5.com/qwdc/hnws/#p=4>



# Digital Game-Based Language Learning (DGBLL): Current Uses and Future Opportunities

Jacqueline Espinoza





## Appendix 3

### 2. Board game version of the game “Veo Veo”

Based on personal experience, sometimes it is necessary to have a board game version in case the digital version has technical issues on the day of the lesson.

